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March 3, 2006

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Art Unit 2688

Attn: Mail Stop Amendment

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Re:

U.S. Utility Patent Application

Appl. No. 10/086,367; Filed: March 4, 2002

Method and System for Frequency Up-Conversion For:

Inventors:

SORRELLS et al.

Our Ref:

1744.0020007

Sir:

Transmitted herewith for appropriate action are the following documents:

- 1. Fourth Supplemental Information Disclosure Statement;
- 2. A listing of the cited documents on Form PTO-1449 (3 pages);
- 3. Copies of the cited documents (AJ24-AM24, AJ25-AL25, AN60-AR60, AN61, AO61); and
- 4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Sterne, Kessler, Goldstein & Fox P.L.C. : 1100 New York Avenue, NW : Washington, DC 20005 : 202.371.2600 f 202.371.2540 : www.skgf.com

Commissioner for Patents March 3, 2006 Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jeffrey S. Weaver Attorney for Applicants Registration No. 45,608

MQL/JSW:apg Enclosures

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In re application of:

SORRELLS et al.

Appl. No.: 10/086,367

Filed: March 4, 2002

For: Method and System for Frequency

Up-Conversion

Confirmation No.: 3679

Art Unit: 2688

Examiner: Bhattacharya, Sam

Atty. Docket: 1744.0020007

Fourth Supplemental Information Disclosure Statement

Mail Stop Amendment

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Fourth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Third Supplemental Information Disclosure Statement filed on October 11, 2005 in connection with the above-captioned application.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Document AJ24 was cited in a search report in related European Patent Application No. 04020115.4, filed October 6, 2000, entitled "Down Converter Using Subsampling," directed to related subject matter. Also cited in said search report were U.S. Patent Nos. 5,454,007; 5,705,949; and 5,883,548, PCT Publication Nos. WO 94/05087 and WO 98/40968, German Patent Nos. DE 35 41 031 A and DE 197 35 798 C, and Fest, Jean-Pierre, "Le Convertisseur A/N Revolutionne Le Recepteur Radio," Electronique, JMJ (Publisher), No. 54, pp. 40-42 (December 1995), which have already been cited in the present application.

Documents AK24 and AE71 were cited in an Office Action in related European Patent Application No. 01977965.1, filed May 16, 2001, entitled "Apparatus, System, and Method for Down converting and Up converting Electromagnetic Signals," directed to related subject matter. Also cited in said search report were U.S. Patent Nos. 5,564,097 and 5,640,698; PCT Publication No. WO 96/02977; and Rudell, J.C. *et al.*, "A 1.9-Ghz Wide-Band IF Double Conversion CMOS Receiver for Cordless Telephone Applications," IEEE Journal of Solid-State Circuits, IEEE, Vol. 32, No. 12, pp. 2071-2088 (December 1997), which have already been cited in the present application.

Documents AL24, AM24, AJ25-AL25, and AF71 were cited in an Office Action in related Israel Patent Application No. 142,699, filed October 18, 1999, entitled "Method and System for Frequency Up-Conversion,", directed to related subject matter. Also cited in said Office Action was European Patent Publication No. EP 0 548 542, which has already been cited in the present application.

Documents AN60 and AD71 were cited in an Office Action in related U.S. Patent Application No. 10/197,253, filed July 18, 2002, entitled "Networking Methods and Systems," directed to related subject matter.

Documents AE69-AI69 were cited in an Office Action in related U.S. Patent Application No. 10/197,255, filed July 18, 2002, entitled "Networking Methods and Systems," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 6,850,742, which has already been cited in the present application.

Documents AA70, AA71, and AG71 are co-owned patents which are directed to related subject matter.

Documents AB70 and AC70 were cited in an Office Action in related U.S. Patent Application No. 09/569,045, filed May 10, 2000, entitled "Methods And Apparatuses Relating To A Universal Platform Module And Enabled By Universal Frequency Translation Technology," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,844,868, which has already been cited in the present application.

Documents AD70-AI70 were cited in a Notice of Allowance in related U.S. Patent Application No. 10/961,272, filed October 12, 2004, entitled "Apparatus, System, And Method For Down-Converting And Up-Converting Electromagnetic Signals," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 6,853,690, which has already been cited in the present application.

Documents AB71 and AC71 were cited in an Office Action in related U.S. Patent Application No. 09/550,644, filed April 14, 2000, entitled "Method And System For Down-

Converting An Electromagnetic Signal, Transforms For Same, And Aperture Relationships," directed to related subject matter.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below:

- 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
 - a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a

Atty. Docket: 1744.0020007

Atty. Docket: 1744.0020007

counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1). b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2). c. Attached is our PTO-2038 Credit Card Payment Form in the amount of _____ in payment of the fee under 37 C.F.R. § 1.17(p). 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of §_____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition: a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).

- b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance.

 1138 OG 37, 38.

Document AK24 (DE 1936252) appears to describe a modulator or demodulator in integrated technology. An English language translation of document AK24 is enclosed as document AO60.

Document AL24 (JP 62-12381) appears to describe a pulse-width modulation control system of an inverter. An English language abstract of document AL24 is enclosed as document AP60.

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Document AM24 (JP 4-154227) appears to describe a relay monitoring device for broadcasting radio waves. An English language abstract of document AM24 is enclosed as document AQ60.

Document AJ25 (JP 6-284038) appears to describe a transceiver. An English language abstract of document AJ25 is enclosed as document AR60.

Document AK25 (JP 10-96778) appears to describe a distance measuring device. An English language abstract of document AK25 is enclosed as document AN61.

Document AL25 (JP 11-98206) appears to describe a demodulator for digital radio communication. An English language abstract of document AL25 is enclosed as document AO61.

- 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No._______, filed _______, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).
- ☑ 9. It is expected that the examiner will review the prosecution and cited art in the parent application nos. 09/379,497, filed August 23, 1999 (now U.S. Pat. No. 6,353,735), and 09/176,154, filed October 21, 1998 (now U.S. Pat. No. 6,091,940), in accordance with MPEP 2001.06(b), and indicate in the next communication from

Atty. Docket: 1744.0020007

the office that the art cited in the earlier prosecution histories has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jeffrey S. Weaver Attorney for Applicants

Registration No. 45,608

Date: 3-3-06

1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600

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FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Page 1 of 3 ATTY. DOCKET NO. 1744.0020007 APPLICATION NO. 10/086,367 FIRST NAMED INVENTOR

David F. SORRELLS

INFORMATION DISCLOSURE STATEMENT					FILING DATE ART UNIT March 4, 2002 2688					
			U.S. PA	TENT	DOCUMENTS					
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	N,	AME	CLASS	SUB-CLASS	FILING DATE		
	AA									
	AB									
.	AC									
	AD									
	AE69	5,703,584	12/1997	н	ill					
	AF69	5,887,001	03/1999	R	ussell					
	AG69	6,298,065 B1	10/2001	D	ombkowski <i>et al</i> .					
•	AH69	2002/0080728 A1	06/2002	s	ugar <i>et al</i> .			-		
	Al69	2002/0163921 A1	11/2002	E	thridge <i>et al</i> .					
-	1		FOREIGN	PATE	NT DOCUMENTS			J		
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AJ24	WO 98/53556 A2	11/199	8	PCT			N/A		
	AK24	DT 1936252	01/1971 01/1987 05/1992		DT			Yes (Doc. AO60)		
	AL24	JP 62-12381			JP			No		
	AM24	JP 4-154227			JP			No		
		OTHER DOCUMENT	S (Includii	ng Aut	hor, Title, Date, Pert	inent Pages,	etc.)	1		
EXAMINER INITIAL	DOC. REF.	CITATION								
	AN60	Gaudiosi, J., "Retailers will bundle Microsoft's Xbox with games and peripherals," Video Store Magazine, Volume 23, Issue 36, pg. 8, 2 pages (September 2-8, 2001).								
	AO60	English-language Translation of German Patent Publication No. DT 1936252, translation provided by Transperfect Translations, 12 pages (January 28, 1971 - Date of publication of application).								
AP60 English-language Abstract of Japanese Patent Publication No. JP 62-12381, data supplied by 1 page (January 21, 1987 - Date of publication of application).										
	a supplied by	olied by the espacenet,								
	AR60	English-language Abstr 1 page (October 7, 199			atent Publication No. JP tion of application).	6-284038, data	a supplied by	the espacenet,		
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT ATTY. DOCKET NO. 1744.0020007 FIRST NAMED INVENTOR

APPLICATION NO. 10/086,367

Page 2 of 3

David F. SORRELLS

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EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE		NAME		CLASS	SUB-CLASS	FILING DATE		
0	AA70	6,963,734 B2	1	1/2005	Sorrells et al.						
	AB70	6,005,506	1:	2/1999 E		zarjani <i>et al</i> .					
	AC70	,438,366 B1 0		08/2002		Lindfors et al.					
	AD70	5,196,806	0:	3/1993 Ichir		ihara					
	AE70	5,410,195	0.	1/1995 Ichihara		ihara					
	AF70	6,404,823 B1	0	6/2002	Grange et al.						
	AG70	6,618,579 B1	0:	9/2003	Smith et al.						
	AH70	2001/0015673 A1	0	8/2001	Yamashita et al.		,				
	AI70	2003/0045263 A1	03/2003		Wakayama et al.						
			FOF	REIGN PA	TEN	IT DOCUMENTS	1		I		
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER		DATE		COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AJ25	JP 6-284038		10/1994		JP			No		
	AK25	JP 10-96778		04/1998		JP			No		
	AL25	JP 11-98206		04/1999		JP			No		
	AM								Yes No		
		OTHER DOCUMENT	S (lı	ncluding A	Auth	or, Title, Date, Perti	nent Pages,	etc.)			
EXAMINER INITIAL	DOC. REF.	CITATION									
	AN61	English-language Abstract of Japanese Patent Publication No. JP 10-96778, data supplied by the espacenet, 1 page (April 14, 1998 - Date of publication of application).									
	AO61	English-language Abstract of Japanese Patent Publication No. JP 11-98205, data supplied by the espacene 1 page (April 9, 1999 - Date of publication of application).									
	AP										
	AQ										
	AR										
EXAMINER		1					DATE CO	NSIDERED			

Page 3 of 3 ATTY, DOCKET NO. APPLICATION NO. **FORM PTO-1449** 1744.0020007 10/086,367 FOURTH SUPPLEMENTAL FIRST NAMED INVENTOR David F. SORRELLS INFORMATION DISCLOSURE STATEM **FILING DATE ART UNIT** March 4, 2002 2688 **U.S. PATENT DOCUMENTS** EXAMINER DOC. CLASS **DOCUMENT NUMBER** DATE NAME SUB-CLASS FILING DATE INITIAL REF. AA71 12/2005 Rawlins et al. 6,975,848 B2 **AB71** 6,404,758 B1 06/2002 Wang AC71 6,909,739 B1 06/2005 Eerola et al. AD71 6,910,015 B2 06/2005 Kawai 3,719,903 03/1973 Goodson AE71 05/1986 AF71 4,591,930 Baumeister 02/2006 AG71 7,006,805 B1 Sorrells et al. AΗ ΑI **FOREIGN PATENT DOCUMENTS EXAMINER** DOC. **TRANSLATION** DATE COUNTRY CLASS SUB-CLASS DOCUMENT NUMBER INITIAL REF. Yes ΑJ No Yes AK No Yes ΑL No Yes AΜ No OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) **EXAMINER** DOC. CITATION INITIAL REF. AN AO AP AQ AR **EXAMINER** DATE CONSIDERED **EXAMINER**: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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